

## Remarks

[0001] Herein, the "Action" or "Office Action" refers to the Office Action date November 16, 2006.

[0002] Applicant respectfully requests reconsideration and allowance of all pending claims of the application. Claims 1-33 are presently pending. Claims 1, 5, 13, 20, and 28 are amended herein. Claims withdrawn or canceled herein are None. New claims added herein are None.

### **Formal Request for an Interview**

[0003] If the Office's reply to this communication is anything other than allowance of all pending claims, then Applicant formally requests an interview with the Examiner of this patent application. I encourage the Examiner to contact me—the undersigned attorney for the Applicant—to schedule a date and time for a telephone interview that is most convenient for both of us. Please email me at [christf@leehayes.com](mailto:christf@leehayes.com). Should you contact me by email, please copy my assistant Carly Taylor ([carly@leehayes.com](mailto:carly@leehayes.com)) as well. While email works great for me, I welcome you to call either of us as well.

## **Substantive Claim Rejections**

### **35 USC § 101 Claim Rejections**

**[0004]** Claims 5-19 are rejected under 35 USC §101 as being directed to non-statutory subject matter because the language of the claims in view of the definition of the computer readable media from the detailed description recites carrier and signals which are not considered as tangible (*Office Action* p.2). Appropriate amendments have been made herein.

**[0005]** Claims 5-12 are rejected under 35 USC §101 as being directed to a non-statutory process because they merely manipulate an abstract idea without a claimed limitation to a practical application (*Office Action* p.2). Appropriate amendments have been made herein.

**[0006]** More specifically, claim 5 has been amended to recite in part, "[a] computer-readable medium including at least one tangible component, and having stored thereon a data structure for receiving data formatted in accordance with a first version of the data structure and for presenting the received data in an arrangement which can be validated by a device using a current version, the data structure..." (Emphasis Added).

**[0007]** MPEP, §2106.01, subsection I., ¶1, which is titled "Functional Descriptive Material: 'Data Structures' Representing Descriptive Material Per Se or Computer Programs Representing Computer Listings Per Se" provides guidance regarding the patentability of data structures. The referenced paragraph states that "[d]ata structures not claimed as embodied in computer-readable media are descriptive material *per se* and

are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 22 F.3d at 1316, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer readable media encoded with a data structure defines a structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory (MPEP §2106.01, I., ¶1) (Emphasis Added).

**[0008]** Amended claim 5 clearly indicates that the data structure is embodied in computer-readable media, and further recites structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized. Accordingly, Applicant respectfully requests that the §101 rejection of claim 5, and the §101 rejections of claims 6-12 which depend from claim 5 be withdrawn.

### **35 USC § 102 Claim Rejections**

**[0009]** Claims 1-22 are rejected under 35 USC §102(a) as being anticipated by U.S. Patent Application Publication No. 2003/0097365 to Stickler (hereinafter, "Stickler") (*Office Action* p.3).

**[0010]** Applicant respectfully traverses the rejections, and requests reconsideration and allowance in light of the comments and amendments contained herein. Accordingly, Applicant requests that the rejections be withdrawn and that the case be passed along to issuance.

**[0011]** **Claim 1** recites:

A computer-readable medium including at least one tangible component, and having stored thereon a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement which can be validated by a device using a current version, the data structure, comprising:

at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data; and

at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure.

**[0012]** For example, Stickler does not show or disclose "a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement which can be validated by a device using a current version", as recited in claim 1.

**[0013]** Further, Stickler does not show or disclose that the data structure comprises "at least one optional data member to render the received data functional within the current version of the data structure

when optional data is absent from the received data", and "at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure", as recited in claim 1.

**[0014]** As a starting point, the pending application is directed to versioning of data structures (*Specification* [0003] and [0016]-[0019]). Programmers typically evolve their types/formats over time to either add new features or fix bugs. These types/formats are data structures which can be described using a neutral language, such as XML schema (*Specification* [0004]-[0005]). In distributed systems, it is important to let types at one end point (*e.g.*, a server) evolve and still be able to interoperate with types at another end point (*e.g.*, a client) that did not evolve (*Specification* [0005]-[0006]). The specification describes inventions which render different generations of a type, or versionable schema, compatible with another (*Specification* [0016]-[0017]). For example, when data formatted in accordance with a first version is received, the data structure of the present invention can receive the data formatted in accordance with the first version and present the received data in an arrangement which can be validated by a device using a different version (*Specification* [0023]). For example, the versioning of data structures or types described in the application may be utilized for exchanging text, electronic messages, web-posts, etc., between a server and a client device which utilize different types for validating messages

(*Specification* [0024]). In short, the pending claims are directed to versioning of data structures or types so that devices using different types are able to validate messages which are exchanged.

**[0015]** In contrast, Stickler is directed to versioning of data, not to the versioning of data structures (*Stickler* [0060]-[0061] and [0082]-[0084]). Stickler is directed to a system and method which relate to management and distribution of electronic media with tools like data versioning and data modeling (*Stickler* [0003]).

**[0016]** Stickler describes a Metia Framework that defines a set of standard, open and portable models, interfaces, and protocols facilitating the construction of tools and environments optimized for the management, referencing, distribution, and storage of electronic media (*Stickler* [0060]and [0424]). The versioning of Stickler, refers to the identification, preservation, and retrieval of particular revisions or editions in the editorial lifecycle of some discrete body of data. As defined by Stickler a version is a snapshot in time, and retrieving a past version is traveling back in time or move ahead in time to the point when that snapshot was taken (*Stickler* [0084]-[0087]).

**[0017]** Stickler describes snapshotting as the process of preserving a complete copy of every revision (*Stickler* [0087]). One takes a snapshot of the content at a given point in time and assigns a revision number to it (*Stickler* [0087]). A major drawback of snapshotting is that it places heavy storage demands on the system hosting the archive, and is very inefficient

in that the differences between revisions are very slight and therefore there is a large amount of redundant information stored in the archive.

**[0018]** Stickler also describes a reverse/forward delta mechanism for use in data versioning (*Stickler* [0088]). A delta is a set of one or more editorial operations (modifications) which can be applied to a body of data to consistently derive another body of data (*Stickler* [0088]). A reverse delta allows one to derive a previous revision from a former revision and a forward delta defines the operations needed to derive the more recent information from the preceding revision (*Stickler* [0088]). Rather than store the complete and total content of each revision, as done with snapshotting, a GMA which uses deltas simply store the modifications necessary to derive each version from another version (*Stickler* [0088]). To obtain a specific version, reverse/forward deltas are applied on a current version until the desired version is reached.

**[0019]** Stickler does not show or disclose "a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement which can be validated by a device using a current version", as recited in claim 1. Stickler says nothing about such a data structure (*i.e.*, a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement which can be validated by a device using a current version).

**[0020]** Further, since Stickler says nothing about such a data structure, Stickler clearly does not show or disclose that the data structure comprises “at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data”, and “at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure”, as recited in claim 1. Stickler says nothing about an one optional data or a construct as recited in claim 1.

**[0021]** Accordingly, claim 1 is allowable over Stickler for at least the reasons described above and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0022]** **Claims 2-4** are allowable by virtue of their dependency upon claim 1 (either directly or indirectly). Additionally, some or all of claims 2-4 may be allowable over Stickler for independent reasons.



**[0023] Claim 5** recites:

A computer-readable medium including at least one tangible component, and having stored thereon a data structure for receiving data formatted in accordance with a first version of the data structure and for presenting the received data in an arrangement which can be validated by a device using a current version, the data structure, comprising:

at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data;

at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure;

a delimiter which acts as a sentry to validate a beginning of the construct; and

at least one wildcard member that follows the delimiter to receive wildcard data received in accordance with a different version of the data structure.

**[0024]** As described above in response to the rejection of claim 1, Stickler does not show or disclose "a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement which can be validated by a device using a current version", as recited in claim 5. Further, as described above in response to the rejection of claim 1, Stickler does not show or disclose that the data structure comprises "at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data", and "at least one construct to render the received data functional within the current version of the data structure when the received data includes

wildcard data that is not specified by the current version of the data structure", as recited in claim 5.

**[0025]** Still further, Stickler does not does not show or disclose "a delimiter which acts as a sentry to validate a beginning of the construct; and at least one wildcard member that follows the delimiter to receive wildcard data received in accordance with a different version of the data structure", as recited in claim 5.

**[0026]** Accordingly, claim 5 is allowable over Stickler for at least the reasons described above and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0027]** **Claims 6-12** are allowable by virtue of their dependency upon claim 5 (either directly or indirectly). Additionally, some or all of claims 2-4 may be allowable over Stickler for independent reasons.

**[0028]** **Claim 13** recites a computer-readable medium including at least one tangible component, and having stored thereon one or more instructions to be executed by one or more processors, the one or more instructions causing the one or more processors to:

receive data common to multiple generations of type, wherein the type refers to data structure of a message file which enables a message to be encoded or decoded in a valid manner;

tolerate an absence of optional data from the received data, when the data is received in accordance with a different generation of the type;

accept an inclusion of extra data in the received data, when the data is received in accordance with another different generation of the type; and

validate a message by inserting the received data into a current generation of the type.

**[0029]** Stickler does not show or disclose a computer-readable medium including at least one tangible component, and having stored thereon one or more instructions to be executed by one or more processors, the one or more instructions causing the one or more processors to "receive data common to multiple generations of type, wherein the type refers to data structure of a message file which enables a message to be encoded or decoded in a valid manner" as recited in claim 13.

**[0030]** Similar to the arguments presented in response to the rejection of claim 1, Stickler is directed to versioning of data and not to versioning of data structures or types. Accordingly, Stickler says nothing

about receiving data common to multiple generations of type, wherein the type refers to data structure of a message file which enables a message to be encoded or decoded in a valid manner, as recited in claim 13.

**[0031]** Further, since Stickler says nothing about receiving data common to multiple generations of type (where the type refers to a data structure of a message file which enables a message to be encoded or decoded in a valid manner), Stickler clearly does not show or disclose the one or more instructions causing the one or more processors to, "tolerate an absence of optional data from the received data, when the data is received in accordance with a different generation of the type; accept an inclusion of extra data in the received data, when the data is received in accordance with another different generation of the type; and validate a message by inserting the received data into a current generation of the type" as recited in claim 13.

**[0032]** Accordingly, claim 13 is allowable over Stickler and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0033]** **Claims 14-19** are allowable by virtue of their dependency upon claim 13 (either directly or indirectly). Additionally, some or all of claims 14-19 may be allowable over Stickler for independent reasons.

**[0034]** **Claim 20** recites a method comprising:

receiving data in accordance with different type versions, where each of the different type versions uses an different arrangement of data within a message file to enable encoding and decoding of the received data;

tolerating optional data missing from the received data, when the data is received according to a different type version;

receiving further data included in the received data, when the data is received according to another different type version; and

formatting the received data according to a current type version into a message.

**[0035]** Stickler does not show or disclose "receiving data in accordance with different type versions, where each of the different type versions uses an different arrangement of data within a message file to enable encoding and decoding of the received data" as recited in claim 13. As presented in response to the rejection of claim 1, Stickler is directed to versioning of data, not to the versioning of data structures.

**[0036]** Similar to the arguments presented in response to the rejection of claim 13, since Stickler says nothing about receiving data common to multiple generations of type (where the type refers to a data structure of a message file which enables a message to be encoded or decoded in a valid manner), Stickler clearly does not show or disclose tolerating optional data missing from the received data, when the data is received according to a different type version; receiving further data included in the received data, when the data is received according to

another different type version; and formatting the received data according to a current type version into a message”, as recited in claim 20.

**[0037]** Accordingly, claim 20 is allowable over Stickler and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0038]** **Claims 21-27** are allowable by virtue of their dependency upon claim 20 (either directly or indirectly). Additionally, some or all of claims 21-27 may be allowable over Stickler for independent reasons.

**[0039]** **Claim 28** recites a parser comprising:

means for receiving data according to multiple different generations of type, where each different generation of type uses an different arrangement of data within a message file to enable encoding and decoding of the received data;

means for excusing optional data being absent from the received data, when the data is received according to a different generation of the type; and

means for receiving further data in the received data, when the data is received according to another different generation of the type.

**[0040]** Stickler does not show or disclose “means for receiving data according to multiple different generations of type, where each different generation of type uses an different arrangement of data within a message file to enable encoding and decoding of the received data” as recited in claim 28. As presented in response to the rejection of claim 1, Stickler is directed to versioning of data, not to the versioning of data structures.

**[0041]** Similar to the arguments presented in response to the rejection of claim 20, since Stickler says nothing about receiving data according to multiple different generations of type (where the type refers to a data structure of a message file which enables a message to be encoded or decoded in a valid manner), Stickler clearly does not show or disclose “means for excusing optional data being absent from the received data, when the data is received according to a different generation of the type; and means for receiving further data in the received data, when the data is received according to another different generation of the type”, as recited in claim 28.

**[0042]** Accordingly, claim 28 is allowable over Stickler and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0043]** **Claims 29-33** are allowable by virtue of their dependency upon claim 28 (either directly or indirectly). Additionally, some or all of claims 29-33 may be allowable over Stickler for independent reasons.

### **Dependent Claims**

**[0044]** In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each dependent claim where its base claim is allowable.

## **Conclusion**

**[0045]** All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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